

HANDBOOK OF PHONOLOGICAL DATA
FROM A SAMPLE OF THE WORLD'S LANGUAGES

A Report of the Stanford Phonology Archive

Compiled and edited by

John H. Crothers
James P. Lorentz
Donald A. Sherman
Marilyn M. Vihman

	790 Zoque	790 Zoque	790 Zoque
790	01 p ⁰¹ *[b]	[d/z-hacek] ^{02 60} 12 f (loan)	24 h-nasalized ³⁵ (surface)
790	02 b ^{02 30 60} (allo,loan) */p/	13 s [z] ⁶²	
790	03 t ⁰¹ *[d] [t-unreleased] ⁶¹	14 s-hacek ³² (surface)	51 i ⁰⁷ 52 epsilon
790	04 d ^{02 03 30 60} (allo,loan) */t/	15 m 16 n	53 a 54 u ⁰⁷
790	05 c-palatoalveolar ^{01 04 31} (surface) [j-palatoalveolar] ^{02 04 60}	17 n-palatoalveolar ³² (surface)	55 o-mid ⁰⁸ 56 e-mid-trema-nasalized ⁰⁹
790	07 k ^{01 05} *[g]	18 eng 19 l	57 yod 58 yod-nasalized ³⁵ (surface)
790	08 g ^{02 05 30 60} (allo,loan) */k/	20 r-flap (loan)	59 w [beta-palatalized] ⁶³
790	09 t/s [d/z] ⁶⁰	21 r-trill (loan)	60 w-nasalized ³⁵ (surface)
790	10 t/s-hacek ^{01 32} (surface)	22 glottal stop ³³ 23 h ^{06 34}	
790	\$a Zoque \$b Copainala \$d Penutian \$e S Mexico \$f 20,000 \$g Merritt Ruhlen \$h Jim Lorentz (review) \$i John Crothers (editor)		
790	\$a Wonderly, William L. \$b 1951 \$c Zoque II: Phonemes and Morphophonemes \$d IJAL 17:2.105-123 \$q informant \$r unknown		
790	\$a LOANS \$A In his phonological analysis Wonderly generally makes no distinction between native words and Spanish loans. Many of the forms cited in Wonderly's articles are in fact Spanish, and it is clear that the native consonant system is radically different from that of Spanish. It is not clear from the examples how deeply the loans have influenced the current phonological pattern of Zoque. Wonderly does not discuss speakers' awareness of native versus Spanish patterns. However, since it is easy to distinguish the Spanish words and patterns, and since it is preferable for the Phonology Archive to reflect native patterns, I have re-analyzed the consonant system to show the native patterns. [JHC]		
790	\$a MORPHEME STRUCTURE \$A CV(C)(C); CV(C)CV(C)(C)\$A The structures given are for noun and verb stems. (See Wonderly, Zoque III, IJAL 17.) Prefixes seem to be restricted to the person markers /n, n.yod, yod/, used with both nouns and verbs. Suffixes exhibit a variety of structures, and may begin with a vowel. [JHC]		
790	\$a MORPHOLOGICAL STRUCTURE OF WORDS \$A Noun: (person prefix) + stem + (suffix) Verb: (person prefix) + stem + aspect, mood, person, number, and various derivational and "adverbial" suffixes; three or more suffixes are not uncommon; the structure is transparently agglutinative.		
790	\$a PHONOLOGICAL WORD \$A Stress seems to be the only strictly phonological characteristic that marks off words. Due to compounding and extensive suffixation (especially in verbs) words may be fairly long.		
790	\$a STRESS \$A "A stress group may be said to consist of a single word...or a close-knit phrase.... Stress is usually on the penult of the stress group, with a secondary stress on the first syllable if there are three or more syllables.... This stress is variable within certain limits. Certain forms which usually show penultimate stress may...shift the stress to a different syllable." (p.108)		
790	\$a SYLLABLE \$A (C)(C)CV(C)(C) \$A Syllables with initial clusters occur only in word initial position, and are due to prefixation. [JHC]		

- 790 \$A VOWEL HARMONY \$A There is a limited type of progressive vowel harmony in Zoque. A front vowel, restricted to a certain class of morphemes, is realized as [i] after high vowels and as [ɛpsilon] after mid or low vowels. Further, a non-front vowel, with similar morphological restrictions, is realized as [i-trema-nasalized] after high or low vowels and as [a] after low vowels. See source, pp.121-122 for details.
- 790 01 \$A "Voiceless stops...have varying degrees of aspiration, depending on position. For /t/s-hacek/, the spirant release constitutes the aspiration. The aspiration is most conspicuous in utterance final position.... In clusters which have a voiceless stop before a nasal or another voiceless stop, the aspiration consists of a release or open transition before the second consonant of the cluster." (p.105)
- 790 02 \$A "Voiced stops [b, d, j-palatoalveolar, d/z-hacek, g] are strongly articulated after nasals i.e. in native words, JHC]. They are less strongly articulated in other positions." (p.106)
- 790 03 \$A "/d/ is alveolar when after nasals.... In other positions it is dental-alveolar." (p.106)
- 790 04 \$A /c-palatoalveolar/ and [j-palatoalveolar] are "produced with the blade of the tongue in alveopalatal position and the tip down." (p.106)
- 790 05 \$A /k/ and /g/ are "fronted before front vowels and /yod/, backed before back vowels." (p.106)
- 790 06 \$A "/h/ is a glottal spirant with or without friction, depending on the articulatory position." (p.107)
- 790 07 \$A /i/ and /u/ vary from (high) "open to close." (p.108)
- 790 08 \$A /o-mid/ varies from (mid) "open to close." (p.108)
- 790 09 \$A /e-mid-trema-nasalized/ varies "from mid back to high back" and is "usually nasalized." (p.108)
- 790 30 \$A The voiced stops and affricates occur in native words only as positional allophones of the voiceless series. In Spanish loans they function as independent phonemes, with "spirantal character...intervocally." (p.106)
- 790 31 \$A /c-palatoalveolar/ occurs only as the result of morphophonemic merger of /t/ with an adjacent /yod/. Syllable final /yod/ palatalizes following /t/, but does not merge with it, so that in this position /c-palatoalveolar/ could be considered an allophone of /t/, by strict phonemic principles. [JHC]
- 790 32 \$A Most occurrences of /t/s-hacek/, /s-hacek/, or /n-palatoalveolar/ in native words are due to morphophonemic merger of /t/s/, /s/, and /n/ with /yod/. [JHC]
- 790 33 \$A "Utterance initial /glottal stop/ is difficult to detect phonetically." (p.106) In syllable final position (except before nasals) /glottal stop/ is generally followed by "a voiced or voiceless partial rearticulation of the preceding vowel." (p.106) In utterance-final position vowels may be followed by a weakly articulated [glottal stop] which has no echo vowel and which disappears before a consonant, unlike the /glottal stop/ phoneme. (p.107)
- 790 34 \$A "In word final position, especially after mid or low vowels and when unstressed, /h/ is difficult to detect phonetically except by the absence of any glottal affectation.... It becomes more conspicuous when followed by another consonant." (p.107)
- 790 35 \$A The phonetic description of /h-nasalized/, /yod-nasalized/, and /w-nasalized/ is difficult to accept at face value. These segments arise only by a merger of the prefix /n/ with a following /h/, /yod/ or /w/, in which case the /n/ is "indeterminate as to point of articulation and is actualized as a nasalization of the /yod, w, h/." (p.107) Perhaps the /n/ is not fully articulated, but still exists as a brief nasalized vowel. [JHC]
- 790 60 \$A Stops and affricates are voiced after nasals.
- 790 61 \$A /t/ is unreleased before another /t/. (p.105)
- 790 62 \$A (In Spanish loans) /s/ is voiced before voiced stops. (p.107)
- 790 63 \$A /w/ is realized as [beta-palatalized] before /yod/. (p.107)